

APPARATUS FOR REMOVAL/REMAINING THICKNESS PROFILE MANIPULATION

ABSTRACT OF THE DISCLOSURE

An invention is provided for removal rate profile manipulation during a CMP
5 process. An apparatus of the embodiments of the present invention includes an actuator
capable of vertical movement perpendicular to a polishing surface of a polishing pad.
The actuator is further capable of flexing the polishing pad independently of a pad
support device. Also included in the apparatus is an actuator control mechanism that is in
communication with the actuator. The actuator control mechanism is capable of
10 controlling an amount of vertical movement of the actuator, allowing the actuator to
provide local flexing of the polishing pad to achieve a particular removal rate profile.
The actuator can also be capable of horizontal movement parallel to the polishing surface
of the polishing pad.